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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,872	12/19/2001	Byung Cheon Lee	HI-0062	8799
34610	7590	10/04/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			LEE, ANDREW CHUNG CHEUNG	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/020,872	Applicant(s) CHEON LEE, BYUNG	
	Examiner Andrew C. Lee	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the claimed subject matter "a mobile communication system" as disclosed in claim 1, claim 13, and claim 19 are not indicated or shown in the diagrams. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1 – 4, 8, 9, 12, 13, 15, 16, 17, 18, 19, 20, 21 are objected to because of the following informalities: the subject matters “CPS, VPVC and CID” should be spelled out in full terms instead in acronym. The subject matters in current forms carry no meaning.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (U.S. 6747974 B1) in view of Chu et al. (U.S. 5539744).

Regarding claims 1, 19, Hayashi discloses the limitation of an AAL2 switch for communication system (Fig. 1, the element 10), comprising: a plurality of receiver circuits each receiving and demultiplexing an AAL2 packet for converting into at least one CPS packet (column 2, lines 19 – 23; lines 30 – 34; lines 49 – 62); a plurality of memories that store said at least one CPS packet (column 2, line 34; Fig. 4, element 401; column 5, lines 61 – 62); and a plurality of transmitter circuits each coupled to the plurality of memories that search the plurality of memories, convert the searched CPS packet into an AAL2 packet by multiplexing, and transmit the AAL2 packet (Fig. 8,

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elements 10- 1,,,10-M; column 9, lines 6 – 27; lines 43 – 51). Hayashi does not disclose expressly an AAL2 switch for multicast in a mobile communication system. Chu et al. discloses the limitation of an AAL2 switch for multicast in a mobile communication system (Fig. 1, column 1, lines 20 – 33; column 15, lines 48 – 53; column 9, lines 40 – 43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi to include an AAL2 switch for multicast in a mobile communication system such as that taught by Chu et al. in order to provide a method for affecting hand-off in a cellular telecommunications system (as suggested by Chu et al., see column 1, lines 14 – 16).

Regarding claim 2, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 1, comprising: a first table coupled to each of the plurality of receiver circuits, for managing VPVC, CID and routing information (column 6, lines 50 – 54, element 403); and a second table coupled to each of the plurality of transmitter circuits, for managing storing conversion in formation including the VPVC and the CID (Fig. 8, element 454, column 9, lines 14 – 17; lines 43 – 51).

Regarding claims 3, 20, 21, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 1, wherein a new VPVC and a routing information for the transmitted AAL 2 packet are allocated based on a VPVC and a CID in the received AAL2 packet (column 2, lines 56 – 66).

Regarding claim 4, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 3, wherein said at least one CPS packet and a new VPVC are stored according to the routing information (column 3, lines 1 – 11).

Regarding claim 5, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 1, wherein each of the memories is divided into storage areas each corresponding one of a plurality of output ports (column 15, lines 13 – 19).

Regarding claim 6, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 5, wherein each of the storing areas includes a memory status field, a copy port field, and a port area (column 15, lines 20 – 26).

Regarding claim 7, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 6, wherein the port area is included equal in number to the plurality of output ports (column 15, line 13 – 16).

Regarding claim 8, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 6, wherein the memory status field can discriminate whether the CPS packet is stored (column 10, lines 4 – 7).

Regarding claim 9, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 6, wherein the copy port field can discriminate an output port to which said at least one CPS packet is designated (column 15, lines 13 – 16).

Regarding claim 10, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 1, wherein the transmitter circuits each performs the searching process according to values set in a memory status field in the plurality of memories (column 9, lines 28 – 36).

Regarding claim 11, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 10, wherein the transmitter circuits perform the searching process

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according to values set at a copy port field (column 8, lines 24 – 29; column 9, lines 6 – 11).

Regarding claim 12, Hayashi discloses the limitation of the AAL2 switch for multicast of claim 1, wherein when said at least one CPS packet is searched, the transmitter circuits generate a new CID for the searched CPS packet by using a new VPVC (Fig.8, column 9, lines 43 – 51).

Regarding claim 13, Hayashi discloses the limitation of a switching method of an AAL2 switch for a communication system (Fig. 1, the element 10), the method comprising: converting a received AAL2 packet into a CPS packet by demultiplexing the received AAL2 packet (column 2, lines 19 – 23; lines 30 – 34; lines 49 – 62); generating a new VPVC and routing information based on VPVC and CID in the received AAL2 packet (column 6, lines 29 – 36; lines 50 – 54); storing the CPS packet and the new VPVC according to the routing information in at least one of a plurality of storage areas in a memory (column 2, line 34; Fig. 4, element 401; column 5, lines 61 – 62; column 6, lines 50 – 54); extracting the CPS packet by searching the plurality of storage areas; and transmitting an AAL2 packet by converting the extracted CPS packet into an AAL2 packet and transmitting the AAL2 packet (column 7, lines 56 – 65; column 8, lines 1 – 10; column 9, lines 52 – 56). Hayashi does not disclose expressly an AAL2 switch for multicast in a mobile communication system. Chu et al. discloses the limitation of an AAL2 switch for multicast in a mobile communication system (Fig. 1, column 1, lines 20 – 33; column 15, lines 48 – 53; column 9, lines 40 – 43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi to

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include an AAL2 switch for multicast in a mobile communication system such as that taught by Chu et al. in order to provide a method for affecting hand-off in a cellular telecommunications system (as suggested by Chu et al., see column 1, lines 14 – 16).

Regarding claim 14, Hayashi discloses the limitation of the switching method of claim 13, wherein the converting through transmitting steps are repeatedly performed whenever the received AAL2 packet is inputted (column 2, lines 56 – 62).

Regarding claim 15, Hayashi discloses the limitation of the switching method of claim 13, wherein a memory status field of the storage area indicates whether the CPS packet is stored (column 6, lines 29 – 36; lines 50 – 54).

Regarding claim 16, Hayashi discloses the limitation of the switching method of claim 13, an output port where the CPS packet is sent is indicated in a copy port field of the storage area (column 15, lines 13 – 19).

Regarding claim 17, Hayashi discloses the limitation of the switching method of claim 13, wherein the CPS packet and the new VPVC information is stored in at least a port area of the storage area (column 15, lines 13 – 26).

Regarding claim 18, Hayashi discloses the limitation of the switching method of claim 13, wherein if the CPS packet is extracted, a new CID is generated by using a new VPVC (column 6, lines 50 – 54; column 9, lines 43 – 51).

Regarding claim 22, Hayashi discloses the limitation of the switching method of claim 19, further comprising periodically searching for a memory status field and a copy port field corresponding to each of a plurality of output ports (column 15, lines 1 – 190).

Regarding claim 23, Hayashi discloses the limitation of the switching method of claim 22, wherein the converting the stored CPS packet into the AAL packet extracts the corresponding to an output port where the CPS packet is allocated by the periodically searching (column 9, lines 32 – 36; lines 43 – 56).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).